IN THE CLAIMS:

1.   (Currently Amended)   A storage system comprising:

a plurality of channel units that transfers data sent from an upper-level system and transfers data to said upper-level system;

a plurality of cache units which are ~~connected~~ coupled to said plurality of channel units and in which data sent from said plurality of channel units is stored;

a control unit that is ~~connected~~ coupled to said cache units, and transfers or receives data to or from said cache units;

a disk device in which data sent from said control unit is stored; ~~and~~

~~a said plurality of paths connecting each channel unit to said plurality of cache units.~~

at least one first path coupling a first channel unit of said channel units to a first cache unit of said plurality of cache units;

at least one second path coupling said first channel unit to a second cache unit of said plurality of cache units and not being in common with said first path;

at least one third path coupling a second channel unit of said channel units to said first cache unit; and

at least one fourth path coupling said second channel unit to said second cache unit and not being in common with said third path.

2.   (Canceled)

3.   (Currently Amended)   A storage system according to Claim ~~2~~ 1, wherein said ~~plurality of first paths~~ at least one first path and said ~~plurality of second paths~~ at least one second path are independent of each other.

4.   (Currently Amended)   A storage system according to Claim ~~2~~ 1, wherein said ~~plurality of first paths~~ at least one first path is dedicated to communication between said first cache unit and said plurality of channel units.

5.   (Currently Amended)   A storage system according to Claim 4, wherein said ~~plurality of second paths~~ at least one second path is dedicated to the communication between said second cache unit and said plurality of channel units.

6.   (Canceled)

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7. (Currently Amended) A storage system according to Claim ~~2~~ 1, wherein said ~~plurality of first paths~~ at least one first path directly links said first cache unit to said plurality of channel units.

8. (Currently Amended) A storage system according to Claim 7, wherein said ~~plurality of second paths~~ at least one second path directly links said second cache unit to said plurality of channel units.

9. (Currently Amended) A storage system according to Claim ~~2~~ 1, wherein said ~~plurality of first paths~~ at least one first path links said first cache unit to said plurality of channel units on a point-to-point basis.

10. (Currently Amended) A storage system according to Claim 9, wherein said ~~plurality of second paths~~ at least one second path links said second cache unit to said plurality of channel units on a point-to-point basis.

11. (Original) A storage system according to Claim 1, wherein said disk device includes a plurality of disk drives, and said control unit is coupled to said plurality of disk drives.

12. (Currently Amended) A storage system according to Claim 1, wherein said ~~plurality of~~ paths are signal lines linking said plurality of channel units and said plurality of cache units.

13. (Currently Amended) A storage system according to Claim 1, wherein said ~~plurality of~~ paths are used to communicate a reading request, which is issued from said upper-level system, from said

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plurality of channel units to one of said plurality of cache units, and used to communicate data, which is read from said one of said plurality of cache units, to said plurality of channel units.

14.   (Currently Amended) A storage system according to Claim 1, wherein said ~~plurality of~~ paths are used to communicate a writing request, which is issued from said upper-level system, and used to communicate data written from said plurality of channel units to one of said cache units.

15.   (Currently Amended) A storage system according to Claim 1, wherein said ~~plurality of~~ paths includes a number of paths equal to a sum of a number of said plurality of channel units and a number of said plurality of cache units.

16.   (Currently Amended) A storage system according to Claim ~~2~~ <u>1</u>, wherein said ~~plurality of first paths~~ <u>at least one first path</u> includes a number of paths equal to a number of said plurality of channel units.

17.   (Currently Amended) A storage system according to Claim 16, wherein a number of said ~~plurality of second paths~~ <u>at least one second path</u> equals a number of said plurality of channel units.

18.   (Currently Amended) A storage system according to Claim 1, wherein said ~~plurality of~~ paths includes a plurality of third paths that links a first channel unit included in said plurality of channel units to said plurality of cache units, and a plurality of fourth paths that links a second channel unit included in said plurality of channel units to said plurality of cache units.

19.   (Currently Amended) A storage system according to Claim 18, wherein said ~~plurality of third paths~~ <u>at least one third path</u> and said ~~plurality of fourth paths~~ <u>at least one fourth path</u> are independent of each other.

20.   (Currently Amended)   A storage system according to Claim 18, wherein said ~~plurality of third paths~~ at least one third path is dedicated to communication between said plurality of cache units and said first channel unit.

21.   (Currently Amended)   A storage system according to Claim 20, wherein said ~~plurality of fourth paths~~ at least one fourth path is dedicated to the communication between said plurality of cache units and said second channel unit.

22.   (Currently Amended)   A storage system according to Claim 18, wherein said ~~plurality of third paths~~ at least one third path directly links said plurality of cache units to said first channel unit.

23.   (Currently Amended)   A storage system according to Claim 22, wherein said ~~plurality of fourth paths~~ at least one fourth path directly links said plurality of cache units to said second channel unit.

24.   (Currently Amended)   A storage system according to Claim 18, wherein said ~~plurality of third paths~~ at least one third path links said plurality of cache units to said first channel unit on a point-to-point basis.

25.   (Currently Amended)   A storage system according to Claim 24, wherein said ~~plurality of fourth paths~~ at least one fourth path links said plurality of caches to said second channel unit on a point-to-point basis.

26.   (Currently Amended)   A storage system according to Claim 18, wherein a number of said ~~plurality of third paths~~ at least one third path equals a number of said plurality of cache units.

27.   (Currently Amended)   A storage system according to Claim 26, wherein a number of said ~~plurality of fourth paths~~ at least one fourth path equals the number of said plurality of cache units.

28.   (Canceled)

29.   (Canceled)

30.   (Canceled)

31.   (Canceled)

32.   (Canceled)

33.   (Canceled)

34.   (Canceled)

35.   (Canceled)

36.   (Canceled)

37.   (Canceled)

38.   (Canceled)

39.   (Canceled)

40.   (Canceled)

41.   (Canceled)

42.   (Canceled)

43.   (Canceled)

44.   (Canceled)

45.   (Canceled)

46.   (Canceled)

47.   (Canceled)

48.   (Canceled)

49.   (Canceled)

50.   (Canceled)

51.   (Canceled)

52.   (Canceled)

53.   (Canceled)

54.   (New) A storage system comprising:

a plurality of channel units that transfers data sent from an upper-level system and transfers data to said upper-level system;

a plurality of cache units which are coupled to said plurality of channel units and in which data sent from said plurality of channel units is stored;

a control unit that is coupled to said cache units, and transfers or receives data to or from said cache units;

a disk device in which data sent from said control unit is stored; and

at least one first path coupling a first channel unit of said channel units to a first cache unit of said plurality of cache units;

at least one second path coupling said first channel unit to a second cache unit of said plurality of cache units and not being in common with said first path;

at least one third path coupling a second channel unit of said channel units to said first cache unit; and

at least one fourth path coupling said second channel unit to said second cache unit and not being in common with said third path,

wherein said at least one first path is not the same path as said at least one second path.